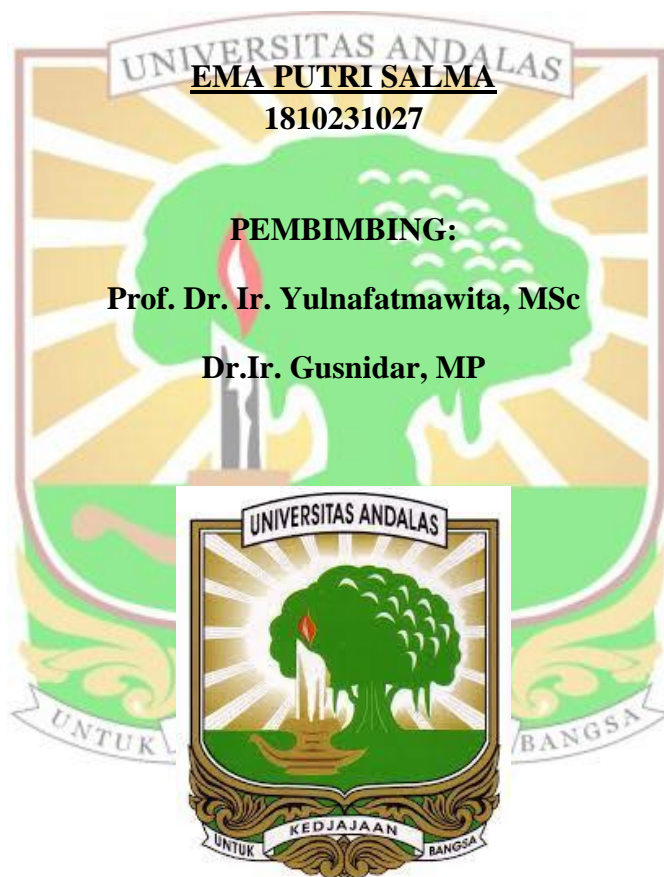


**DISTRIBUSI PORI INCEPTISOLS PADA BEBERAPA KELAS  
LERENG DI KENAGARIAN AIE DINGIN KECAMATAN  
LEMBAH GUMANTI KABUPATEN SOLOK**

**SKRIPSI**

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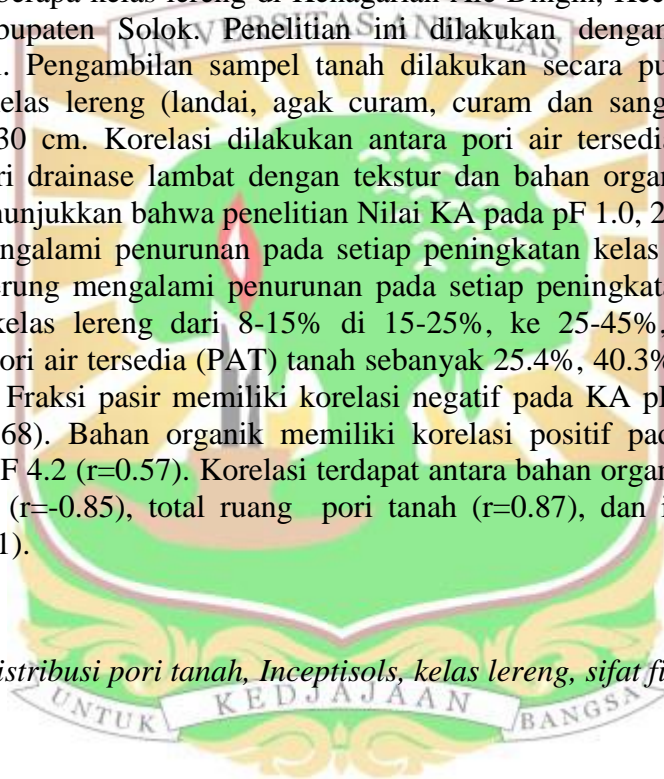
**PROGRAM STUDI ILMU TANAH  
DEPARTEMEN ILMU TANAH DAN SUMBERDAYA LAHAN  
FAKULTAS PERTANIAN  
UNIVERSITAS ANDALAS  
PADANG  
2022**

# **DISTRIBUSI PORI INCEPTISOLS PADA BEBERAPA KELAS LERENG DI KENAGARIAN AIE DINGIN KECAMATAN LEMBAH GUMANTI KABUPATEN SOLOK**

## **ABSTRAK**

Distribusi pori tanah penting untuk mengidentifikasi retensi dan transmisi air dalam tanah. Penelitian distribusi pori tanah berordo Inceptisols pada beberapa kelas lereng telah dilaksanakan di Kenagarian Aie Dingin, Kecamatan Lembah Gumanti, Kabupaten Solok dari bulan Februari-Juli 2022. Penelitian ini bertujuan untuk mengkaji distribusi pori Inceptisols dan korelasinya dengan sifat fisika tanah pada beberapa kelas lereng di Kenagarian Aie Dingin, Kecamatan Lembah Gumanti, Kabupaten Solok. Penelitian ini dilakukan dengan menggunakan metode survei. Pengambilan sampel tanah dilakukan secara purpose sampling berdasarkan kelas lereng (landai, agak curam, curam dan sangat curam) pada kedalaman 0-30 cm. Korelasi dilakukan antara pori air tersedia, pori drainase cepat, dan pori drainase lambat dengan tekstur dan bahan organik tanah. Hasil penelitian menunjukkan bahwa penelitian Nilai KA pada pF 1.0, 2.0, 2.54, dan 4.2 cenderung mengalami penurunan pada setiap peningkatan kelas lereng. Pori air tersedia cenderung mengalami penurunan pada setiap peningkatan kelas lereng. Peningkatan kelas lereng dari 8-15% di 15-25%, ke 25-45%, dan ke >45% menurunkan pori air tersedia (PAT) tanah sebanyak 25.4%, 40.3%, 42.8%, secara berturut-turut. Fraksi pasir memiliki korelasi negatif pada KA pF 2.54 ( $r=-0.51$ ) dan pF ( $r=-0.68$ ). Bahan organik memiliki korelasi positif pada KA pF 2.54 ( $r=0.54$ ) dan pF 4.2 ( $r=0.57$ ). Korelasi terdapat antara bahan organik dengan berat volume tanah ( $r=-0.85$ ), total ruang pori tanah ( $r=0.87$ ), dan indeks stabilitas agregat ( $r=0.61$ ).

*Kata kunci: Distribusi pori tanah, Inceptisols, kelas lereng, sifat fisika tanah*



# PORE DISTRIBUTION OF INCEPTISOLS AT SOME SLOPE LEVELS IN AIE DINGIN LEMBAH GUMANTI SUB-DISTRICT SOLOK REGENCY

## Abstract

Soil pore distribution is important to identify retention and transmission of water in soils. A research on soil pore distribution of Inceptisols at four slope levels was conducted in Aie Dingin, Lembah Gumanti sub-district, Solok Regency from February to July 2022. This research was aimed to analyze soil pore distribution of Inceptisols and its correlation to the soil physical properties. The research employed survey method, the soil samples were taken by purposive sampling based on slope levels (slightly steep, moderately steep, steep, and very steep) at 0-30 cm soil depths. Correlation was carried out between plant available water (PAW) pores, aeration pores, drainage pores and soil texture as well as organic matter content. The result showed that the value of soil water content at pF (1.0, 2.0, 2.54, and 4.2) tended to decrease by increasing slope levels. The plant available pores tended to decrease by increasing slope levels. Increasing the grade of the slope from 8-15% to 15-25%, to 25-45%, and to >45% decreased the PAW pores of the soil by 25.4%, 40.3%, 42.8%, respectively. Sand fraction had a negative correlation to soil water content at pF 2.54 ( $r=-0.51$ ) and pF 4.2 ( $r=-0.68$ ). Organic matter content had a positive correlation to soil water content at pF 2.54 ( $r=0.54$ ) and pF 4.2 ( $r=0.57$ ). There was a negative correlation between soil organic matter content and soil bulk density ( $r=-0.85$ ), positive correlation to total soil pore ( $r=0.87$ ), and positive correlation to soil aggregate stability ( $r=0.61$ ).

*Keywords: Inceptisols, slope levels, soil physical properties, soil pore distribution*

